Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-5 (Canceled)

6. (Currently Amendment) A method for producing a coated cutting tool which comprises forming a hard coating film by a chemical vapor deposition method on a surface of a hard metal base material of a hard alloy comprising a hard phase of tungsten carbide and at least one material selected from the group consisting of a carbide, a nitride and a carbonitride of at least one metal selected from the group consisting of the Group 4, 5 and 6 of the Periodic Table and a mutual solid solution thereof and a binder phase of at least one element selected from the group consisting of Fe, Ni and Co, wherein the hard coating film comprises a columnar crystal structure layer which comprises at least one material selected from the group consisting of a carbide, a carbonitride and a carbonitroxide of titanium, the columnar crystal structure layer contains particles having crystal particle diameters in a direction horizontal to an interface between the hard coating film and the base material are large and the particles having crystal particle diameters in the same direction are small, a ratio of an average particle diameter of the large particles to an average particle diameter of the small particles is 3 to 50, and a hydrocarbon gas mainly comprising ethane is used as a carbon element-feeding gas for forming the hard coating film.

7. (Original) The method according to Claim 6, wherein the hydrocarbon gas comprises at least one selected from methane, acetonitrile and propane, in addition to ethane.

8. (Currently Amended) The method according to Claim 6, wherein the coating film formed by chemical vapor deposition contains at least one layer selected from the carbide, carbonitride and carbonitroxide of titanium, and ethane is used as the carbon element-feeding gas for forming the coating film.

9. (Cancelled)

10. (Original) The method according to Claim 6, wherein a compressive residual stress is applied by at least one selected from ion implantation, shot peening and heat treatment.

11. (New) The method according to claim 6, wherein the columnar crystal structure layer comprises a titanium carbide layer.

12. (New) The method according to claim 6, wherein the columnar crystal structure layer comprises a titanium carbonitride layer.

13. (New) The method according to claim 6, wherein the columnar crystal structure layer comprises a titanium carbonitroxide layer.